

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 to 13 (Canceled).

Claim 14 (Currently amended): ~~Device~~ A device for determining flow parameters, particularly the temperature, the flow velocity, the flow resistance and its change, in a ~~stream of~~ fluid flow to be monitored, particularly in smoke and gas intake detectors, the device comprising: ~~having a thermoelectric air stream sensor (1) that is operated in a constant temperature mode, a thermoelectric temperature sensor (2), and a regulation circuit (3) for setting an excess temperature DT at the air stream sensor (1), whereby~~

a thermoelectric air flow sensor that is operated in a constant temperature mode;

a thermoelectric temperature sensor; and

a regulation circuit for setting a predetermined excess temperature at the air flow sensor, the excess temperature defining a temperature difference between the temperature of the

thermoelectric air flow sensor and the temperature of the fluid to be monitored,

wherein the regulation circuit (3) implemented in a microprocessor (4) contains a regulation algorithm for operating the air flow sensor with a constant excess temperature, ~~by way of which the excess temperature ΔT at the air stream sensor (1) is kept constant, and~~

wherein

wherein the microprocessor (4) furthermore comprises an evaluation algorithm for monitoring fluid flow or flow resistance in the pipe system, the evaluation algorithm recognizing small, ~~sudden volume stream nongradual fluid flow changes of the fluid stream, which are not based on disruptive ambient influences and do not proceed gradually.~~

Claim 15 (Currently amended): ~~Device~~ The device according to Claim 14,

wherein

the evaluation algorithm is furthermore configured for calculating flow parameters on the basis of the electric heating power P of the air ~~stream~~ flow sensor (1), particularly for calculating ~~the~~ a mass stream \dot{M} , ~~the~~ a flow velocity w , ~~the~~ a

volume stream \dot{V} , and ~~the~~ a flow resistance R_w of an intake pipe system (13), and ~~the~~ a temperature T of the fluid ~~stream~~ flow.

Claim 16 (Currently amended): ~~Device~~ The device according to claim 14,

wherein

the evaluation algorithm includes ~~the~~ a compensation of a temperature-dependent and/or pressure-dependent density change of the fluid ~~stream~~ flow.

Claim 17 (Currently amended): ~~Device~~ The device according to claim 14,

wherein

the microprocessor (4) contains a memory for storing starting values of the flow parameters, the starting values being used for calculating status changes in the flow parameters in the evaluation algorithm.

Claims 18-24 (Canceled).

Claim 25 (New): An assembly comprising:

(a) a pipe system for taking air samples from a target space;

(b) a detector for receiving the air samples from the pipe system; and

(c) a device for determining flow parameters disposed in the pipe system comprising a thermoelectric air flow sensor and a microprocessor programmed with a regulation algorithm for operating the air flow sensor with a constant excess temperature and with an evaluation algorithm for monitoring fluid flow or flow resistance in the pipe system, the evaluation algorithm recognizing nongradual fluid flow changes not based on disruptive ambient influences,

wherein the excess temperature defines a temperature difference between the temperature of the thermoelectric air flow sensor and the temperature of the air samples.

Claim 26 (New): An assembly comprising:

(a) a pipe system for taking air samples from a target space; and

(b) a detector for receiving the air samples from the pipe system comprising an air entry channel having a center and a device for determining flow parameters comprising a

thermoelectric air flow sensor disposed in the center of the air entry channel and a microprocessor programmed with a regulation algorithm for operating the air flow sensor with a constant excess temperature and with an evaluation algorithm for monitoring fluid flow or flow resistance in the pipe system, the evaluation algorithm recognizing nongradual fluid flow changes not based on disruptive ambient influences,

wherein the excess temperature defines a temperature difference between the temperature of the thermoelectric air flow sensor and the temperature of the air samples.

Claim 27 (New): An assembly comprising:

(a) a pipe system for taking air samples from a target space; and

(b) a detector for receiving the air samples from the pipe system comprising an air entry channel having a portion narrowed in cross-section and a device for determining flow parameters comprising a thermoelectric air flow sensor disposed in the portion narrowed in cross-section of the air entry channel and a microprocessor programmed with a regulation algorithm for operating the air flow sensor with a constant excess temperature

and with an evaluation algorithm for monitoring fluid flow or flow resistance in the pipe system, the evaluation algorithm recognizing nongradual fluid flow changes not based on disruptive ambient influences,

wherein the excess temperature defines a temperature difference between the temperature of the thermoelectric air flow sensor and the temperature of the air samples.